

American



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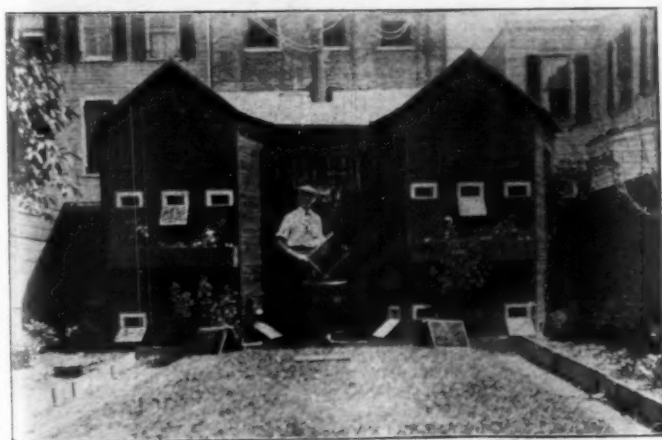


APIARY OF B. F. ANDERSON, OF LOWNDES CO., ALA.

(See pages 740 and 741.)



P. F. ADELSBACH.



APIARY OF JOHN A. SAUER, OF KINGS CO., N. Y.



PART OF FRAME OF QUEEN CELLS REARED BY C. M. DABROW.

For November

GLEANINGS IN BEE CULTURE.

Are you one of the 20,000 subscribers to Gleanings in Bee Culture? If you are not, there are many reasons why you should be. If you are a bee-keeper every number will be worth more than the subscription price. It is the most fully illustrated bee journal published. No medical or fake advertisements. Over one thousand pages annually. It contains the latest quotations from all the principal markets in the United States. The best bee-keepers contribute to every issue.

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THE ROOT CORRESPONDENCE SCHOOL OF BEE CULTURE.

The demand for practical bee-keepers is greater than most people suppose. We are unable to supply the needs so started a correspondence school to fit any one to take advantage of these offers. We do it too at a very reasonable cost. The course also is of greatest value to beginners wishing to make bee-keeping pay, and for those studying bees for recreation. Prospectus giving full particulars will be sent on request.

"Schools of Correspondence are now teaching almost everything; in fact, I have often wondered that some one did not start a correspondence school for teaching bee-keeping, and now I see by an advertisement in the last issue of the Youth's Companion, that no less a firm than our old friends, the Roots, of Medina, Ohio, have done this very thing. I believe that no person or firm in this country is better fitted than they for making a success of such a venture, and I shall watch the outcome with much interest."—*The Bee-keepers' Review*.

"The A. I. Root Company, of Medina, Ohio, has established a correspondence school of bee culture. As this is one of the largest and best firms making bee-keepers' supplies, it is safe to say that its school will be first class in every respect."—*N. W. Agriculturist*.

GOODS AND DISCOUNTS.

The discount of our bee-supplies ordered in November for next seasons use is 5 per cent. A thrifty business man never fails to take advantage of this size discount. Why should a bee-keeper neglect such a matter? Catalog prices will remain same as this year.

December, 4 per cent.

January, 3 per cent.

February, 2 per cent.

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Perhaps it is not yet too late to put your crop in these bags to sell. We have a good stock on hand, and can supply them promptly. Prices on application.

SIMPLEX HONEY-JARS.

This beautiful jar is meeting the approval of the honey seller. It costs no more than the older forms. Is a package that will show off your product to the best advantage, and places it beside the finest on the grocery shelves. A neat label helps. We print them. Work up a home market, for they are the most paying.

CANS AND CASES.

We are shipping promptly anything in the line of honey cans and cases. A good stock of every thing needed at all branch houses. Write us direct for catalog or to any address below.

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We furnish promptly all kinds of rubber stamps. The best made.

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GEORGE W. YORK, Editor.

CHICAGO, ILL., NOV. 3, 1904.

Vol. XLIV—No. 44.



Editorial Notes and Comments



Making Honey Exhibits at Fairs.

On another page of this issue is a list of the premiums offered, and also their winners, at the Minnesota State Fair, held recently. We understand that it was the largest and best display ever made by the bee-keepers of that State. And it ought to have been a good one. For was not the total amount of cash premiums on apiarian exhibits the largest offered by any Fair in this country?

It seems to us that the Minnesota Fair managers have set a good pace, and their example should be held up before those who manage other Fairs, so that they may see what can be done by bee-keepers when they are given proper encouragement.

We congratulate Minnesota bee-keepers on their success. We hope they will continue to merit such generous treatment on the part of their State Fair officials. And we also trust that the already good-sized premium-list may be increased if possible, as we believe that the apiarian department of their Fair can be so encouraged that it will be the most attractive of all.

Choice of Directors of the National.

"It appears in the report of the Texas Bee-Keepers' convention that a card was received from General Manager France, notifying the Association that the term of the Texas Director would expire with the year, and asking them to appoint his successor, and that a successor was then and there elected. Has a new rule been promulgated, making that the proper order of procedure?"

So writes E. V. Pagan. There surely is some mistake in the case. No local or State bee-keepers' association has the right to elect any officer of the National, and Mr. France would hardly proceed in so irregular a manner. The election will take place in the near future by mail, all the members of the National having the opportunity to participate; and the successor to the Texas member may or may not be a Texas man; he will be the man who shall receive the highest number of votes for the place when the vote is counted.

Cost of Selling Honey on Commission.

Mr. E. D. Townsend says in the Bee-Keepers' Review:

"It is estimated, and I have never seen it contradicted, that if comb honey sold through the commission man brings 14 cents a pound, the freight, cartage, and commission will bring the net price down to about 10 cents a pound for the

bee-keeper. Now we have some customers who will give us a cent a pound more than the regular quotations for our honey on board the cars here.....The difference between 10c and 15c, or 50 percent on the deal, is worth looking after."

Certainly the 4 cents a pound is well worth looking after, and Mr. Townsend is to be congratulated that he can secure an extra cent because his customers can rely upon the goods. But there may be no harm in inquiring into the correctness of the estimate he gives, even if it may never have been contradicted. Given without qualification it certainly needs contradiction. Of the three items mentioned, cartage and commission are fixed quantities; freight is a variable quantity. If the distance be sufficiently great, the slice taken off the 14 cents may be a good deal more than 4 cents; if the distance be small may it not be less? Perhaps it might be well to obtain some definite and reliable information on the subject. We invite the commission honey-dealers to help us out in this.

Prices of Honey in England.

In the British Bee Journal D. M. M. reports that heather honey is scarce, and commands at retail 30 to 40 cents a pound. In the advertising columns of the same journal, sections are offered at 17½ cents each by one man, and at 15½ each by another; and pound jars of extracted are offered at 12½ cents each.

Candied Honey—A Suggestion.

Our Canadian cousins seem inclined to get names a little mixed. In the Canadian Bee Journal we are told, "Candied honey is made as follows", and then follow instructions for making what has been known for a long time under the name of "Scholz candy", "Good candy", and "queen candy". Candied honey is honey that has granulated, and in it there is nothing but honey; the mixture in question is mostly sugar, and to call it "candied honey" is to do the very thing against which we so bitterly object on the part of adulterators. Let us be consistent ourselves.

The Rapid Flight of Bees.

On another page, Mr. Allen Latham rather critically examines some experiments touching the flight of bees, the results of which have been published recently.

We have not personally made any tests, but we do not

see why bees should not be able easily to fly at least 60 miles an hour. Why, the speed of a horse has been timed at the rate of a mile in about two minutes. Surely a bee can fly twice as fast as a horse can go.

But it would be interesting to have some bee-flying tests made at the experiment stations. Until we have something definite as to the greatest speed a bee can make in flying, we can all agree that an ordinarily healthy bee can fly quite fast enough—especially when it has succeeded in getting the prospective bee-keeper fairly on the run.

Sainfoin for Forage and Honey.

Much is said in the last Canadian Bee Journal about this plant, which seems to have value as a forage and honey plant, although sainfoin honey is not produced in marketable quantities. At the experimental farm is a plot of sain-

foin that has been growing three years, another seven, which latter is getting very thin. Mr. Fixter says:

"Here is the white clover plot, and may be you can count the bees, you can see five, six, eight or ten; you come to the alfalfa, and may be you do not see a bee at all, or may be one or two on the tops of the bloom; you come to the sainfoin, and you can count 100 bees in some spots where you would see eight or ten on the white clover."

If sainfoin, as a honey-plant, excels white, sweet, and alsike clover, it well deserves trial. Mr. Fixter speaks thus strongly of it:

"The number of bees working on the sainfoin plots, against those working on white clover, alsike and bokhara clovers were quite noticeably in favor of the sainfoin. For fodder and as a fertilizer, it appears to be equal to alfalfa, and its habits and growth are very similar. The sainfoin being slightly finer in the stems, and having more of a stooling habit, will therefore make a much better pasture, especially for sheep."



Miscellaneous News Items



Chas. M. Darrow, of Vernon Co., Mo., wrote thus when sending the queen-cell picture appearing on the first page:

I am sending the picture of some queen-cells which may interest some of the readers. I had intended to have the entire frame taken, containing 11 complete cells (hatched), and one (as shown on the lower bar) as they are prepared for grafting. But while taking them over to the photographer the comb got broken out of the lower part of the frame, so I decided to have only a part of it taken. So far as good queen-cells are concerned their equal never was.

By the way, did any one ever try to hatch queen-bees out of shot-gun shells? Watch me.

CHAS. M. DARROW.

The House-Apiary of John A. Sauer, of Kings, Co., Ohio, is shown on the first page. When sending the picture he wrote:

I send a picture of my lath bee-house, built last spring. It is at the rear of the lot, 20 feet wide and 96 feet deep. The yard is only 20x35 feet. The bee-house is 8 feet high, with a roof to keep out the rain and the hot sun; 5 feet wide, and takes up the width of the lot. I have vines growing over the house, as I find it much better for the bees.

I started keeping bees a year ago last April with 3 colonies, and lost one swarm about two months after. I took off 88 pounds of honey for the season, but sold 800 pounds the first year. This season I have taken off 97 pounds, and increased one, so now I have 4 colonies, and will get at least 100 pounds more of honey.

It can be seen from the picture that I am getting crowded. There are buildings all around me. The population is 5000. I expect to go into the honey-business exclusively in a few years, and will then move to the country, so that I can have about 50 colonies. I like the work very much, even if I have been stung very badly several times.

I get a great deal of valuable information from the American Bee Journal.

JOHN A. SAUER.

The Apiary of B. F. Anderson appears by picture on the first page. He wrote us as follows Sept. 7:

I am sending a picture of my out-apiary containing about 50 colonies, all in movable-frame hives. They are arranged in pairs, and set on benches 12 inches high and 12 feet apart each way. The picture was taken from the south side. The hives all face the east.

The gentleman standing in the rear is a friend of mine; the boys in front are three of my little cousins, and the other "good-looking fellow" standing in front is myself. I

had a frame of honey in my hands looking for a queen at the time the picture was taken.

I have been studying "A B C of Bee-Culture" for two or three years, and I am also a subscriber to the American Bee Journal and Gleanings in Bee-Culture.

I have been keeping bees for several years in box-hives, and did not know the advantage of movable-frame hives until the spring of 1902, when I purchased 10 1½-story dovetailed hives. Since that time I have been keeping them in such hives entirely.

I have sold 2200 pounds of honey from my out-apiary, and will have about 800 or 1000 pounds more to sell.

Lowndes Co., Ala.

B. F. ANDERSON.

Some Facts About Honey and Bees.—This is the subject of an article written by Mr. J. E. Johnson, and published on pages 581-82 of the American Bee Journal for Aug. 25, 1904. We have republished it in 4-page leaflet form for general distribution, and furnish it, postpaid, at 35 cents per 100 copies. Send all orders to the office of the American Bee Journal.

An Explanation from W. Z. Hutchinson appears in Gleanings in Bee-Culture for Nov. 1. It seems that in August he sent out a circular letter to some of the members of the National Bee-Keepers' Association requesting them to vote for him as its next secretary. As would naturally be supposed, such action caused Mr. Hutchinson to be criticised, and especially when it was discovered that only a selected list had received his letter.

In view of the criticism, and after due consideration, Mr. Hutchinson wrote the explanation referred to above, in which he says, "I hereby withdraw my candidacy, and most urgently request my friends to cast their vote for some one else". We think the last is a wise move on the part of Mr. Hutchinson, and we trust his request will be heeded.

Referring to the matter of soliciting votes or nominations for officers in the National, one of our readers wrote us as follows recently:

"We have a very good instance of this at present. The editor of the Bee-Keepers' Review lately sent out a circular to his friends asking for the nomination as secretary. Years ago he made a good secretary, and, no doubt, would be satisfactory, and has an undoubted right to make this request; yet this maneuver is giving him what I call an undue

advantage over others in the nomination. For instance, I have not the least doubt that if the editor of the American Bee Journal had followed the same course, the nominations would have stood between him and the editor of the Review, for laying all flattery aside, the former was as good a secretary as the Association has had; and Mr. Brodbeck, being a modest man, would have been relegated to the third place."

The National Association has had internal troubles enough during the past two or three years without starting any more. The peaceful conditions that seem to be existing now should be encouraged rather than disturbed.

The Group Picture of the National Convention at St. Louis is now ready for delivery. It is quite a good photograph, considering that it was taken in a boiling noonday sunshine. It is mailed for 75 cents, by W. Z. Hutchinson, Flint, Mich.

Dr. Miller and His "Forty Years".—We have received the following item about Dr. Miller and his book:

EDITOR AMERICAN BEE JOURNAL:—

I received Dr. Miller's book, "Forty Years Among the Bees", and find it very interesting reading. It seems like sitting down with the Doctor and having a social chat with him about bees. Everything is stated so plainly, and in so friendly a manner, that one can not fail to be very much interested.

And, by the way, we have a near neighbor who is acquainted with the Doctor, and who attended school under

his tuition years ago, at Marengo. His name is F. L. Sheldon, a very good neighbor and a worthy citizen. Mr. and Mrs. Sheldon often speak of the Doctor, and also of Miss Emma Wilson, in very high terms.

The American Bee Journal we consider a valuable paper. A. M. DEITZ.

Charlevoix Co., Mich., Oct. 26.

No doubt Dr. Miller turned out some good "boys" when he was teaching school. It is a pleasure to have such a testimony as the foregoing come in "after many years".

By the way, we mail Dr. Miller's "Forty Years Among the Bees" for \$1.00; or with the American Bee Journal one year—both for 1.75.

Honey as a Health-Food.—This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food", written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey". It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey the more honey they will buy.

PRICES, prepaid—Sample copy for a two-cent stamp; 50 copies for 70 cts.; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; or 1000 for \$7.50. Your business card printed free at the bottom of the front page on all orders for 100 or more copies. Send all orders to the office of the American Bee Journal.



Sketches of Beedomites



HENRY L. MILLER.

We regret to announce that Henry L. Miller, a bee-keeper and bee-supply dealer at East St. Louis, Ill., died since the meeting of the National Association in St. Louis in September, where he was present. He was born 39 years ago in Illinois. He had been engaged in the bee-supply business for the past nine years. His illness continued 16 days, and was a complication of kidney trouble and typhoid fever. He was buried on the 12th anniversary of his marriage. In writing to us, Mrs. Miller says:

"You are a stranger to me, Mr. York, but I will say to you that if there were more men like Mr. Miller in their homes, or in their habits, there would be fewer unhappy homes. We have six children, the oldest 11 years, and will, with competent help, continue the bee-supply business at this place."

We were not intimately acquainted with Mr. Miller, but from the several times we had met him we formed a high opinion of him. He was very cordial at the St. Louis convention, and seemed to enjoy the meeting very much.

Mrs. Miller and her young family will have the sincerest sympathy of bee-keepers everywhere, in their great loss and bereavement.

P. F. ADELSBACH.

Of all men who have achieved prominence in the West during the last few years, relative to matters pertaining to the bee-business, no doubt P. F. Adelsbach, editor of the Western Bee Journal, published in Tulare Co., Calif., heads the list. He has become prominent not so much as a bee-keeper as a publisher. About a year ago he started his paper in the face of a record of defunct bee-papers that was

fearful, yet he has built up a journal that bids fair to become one of the leading bee-papers in America.

Mr. Adelsbach was born in Marquette, Mich., 30 years ago, of German parents. At an early age his parents removed to California. The boy grew to manhood under the golden skies of the West, and at the early age of 17 he embarked in business for himself in Fresno, Calif., where he conducted with the greatest success the leading photographic studio for over five years. By this time he decided that he wanted to see some of the world, and having shown much ability as an amateur actor, he now secured a permanent place and went on the stage. He continued in this capacity for only one season. He had formed a dislike for the associations of an actor's life, and hence refused to continue, even though he was eagerly sought to continue by the people with whom he had been.

He then returned to his home and secured a position as a reporter on a newspaper, and learned the printing business during odd times. During all this time his education was not neglected, for he soon afterward accepted a position in a business college, where he taught bookkeeping, shorthand and penmanship. About eight years ago he met with an accident from which he has never recovered, and has since been in delicate health. Soon after the accident he met the lady who is now his wife. She was Miss Annetta Snyder, of Selma, Calif. This brought him into a family of bee-keepers, and soon he had the worst kind of bee-fever. After a little time he had an apiary of his own, which he managed with his usual success. But his poor health would not permit him to continue the work, and so he disposed of the bees. He has to this day the keenest interest in bees, and is always studying them.

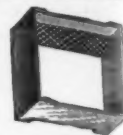
Physically, he is a mere mite of a man, with large blue eyes that penetrate one in an instant, and is very magnetic. He is a splendid speaker, having often raised his voice with telling effect against the liquor-traffic. The whiskey people all know him. He greatly prefers books to bipeds, and has little social tact. He is of a quiet temperament, but ferocious when antagonized. His sincerity of purpose makes him a man who is honored by all who know him.

Tulare Co., Calif.

L. L. RUSSELL.



Contributed Special Articles



Flight of Bees—Experiments Examined.

BY ALLEN LATHAM.

THERE frequently appears in print some statement regarding the rapidity of the honey-bee's flight, but as yet I have never seen anything approaching satisfactory evidence which fixed the limit of the speed which bees attain. The problem is one difficult of solution, and almost any experiment devised to get at this rate of flight is so beset with difficulties that one is little wiser at the close of the experiment than at the beginning. Still, there are some facts that we all can observe, and from which we have the privilege of drawing our own conclusions.

Considering the difficulty besetting this problem, one is a little surprised at the boldness of the assertions to be found on page 629. The statement referred to relates to experiments tried by Mr. Philip Prior. I am surprised that the Editor allowed the statement to go unchallenged. I am unable to assert that bees do not fly 150 miles per hour, but I mean in this article to state a few facts which I think will lead most of my readers to doubt the truth of the observations of Mr. Prior. I believe for one, that more care should be shown in writing and in printing facts relating to bees. We ought not to blame the press in general for its comb-honey lies while we make such rash statements about the habits of bees.

I wish first to show that Mr. Prior's experiment is false on the face of it, not that I mean to say that Mr. Prior is untruthful—far from it—but that there were doubtless weak premises in the form of unreliable observation.

Mr. Prior floured bees, his assistant $2\frac{1}{2}$ miles away watched for the same, each had a stop-watch agreeing perfectly in time; Mr. Prior watched for return of bees full of Golden Gate Park honey.

Let us ponder a moment. Flour was the only identification of the bee. Did Mr. Prior let one bee out, or two, or three, or many? If one, then his assistant had to see one bee in that vast park—had to see that bee with no loss of time, so that Mr. Prior could see it return after an absence of two minutes. (I wonder how many times Mr. Prior had to try this one-bee flouting before he and his assistant got satisfactory results.) Suppose two bees were let out. Then the assistant had to see both, or else the experiment was of no avail. Suppose many bees were floured (as was likely the case), then how was Mr. Prior to know that any particular bee had been to G. G. Park. Whatever the number of the bees let out, the assistant must see the first bee to get back. Well, well, I am getting all mixed up with those bees.

If any one wishes to try this simple experiment let him do so by all means, and find how easy and simple it is! The fact is that the experiment as tried is practically impossible. What chance is there that a single bee let out and floured will be immediately spotted by an observer in a great park? Even if a floury bee is seen, the proof is not there, for that bee may have been otherwise floured.

What sort of flowers grow in G. G. Park? Is it generally known that a bee uses up 40 seconds in filling herself with thin honey? This when the honey is all in one spot. Is a bee to consume no time in getting together the load of honey in G. G. Park? Let Mr. Prior's bees take the minimum of time and use 40 seconds. This will leave 1 minute and 20 seconds for the bees to cover the 5 (five) miles to and from the park. The rate of flight of Mr. Prior's bees is 225 miles per hour, not 150.

I think that I have shown the weakness of the experiment. I think that it was a shame that any credence should ever have been given the canard, more the shame that it should come from a school-teacher. Mr. Prior should have used more care, and should have eliminated the chances for error. What probably happened, is that floured bees were seen by the assistant; that Mr. Prior did see the same bee come back loaded after an absence of two minutes. But that bee had never been to Golden Gate Park and back. She had simply gone to the bees' watering-place and filled herself with water and returned, all in two minutes. We will believe the Prior story when Mr. Prior directs his assistant

to feed the particular bee with a honey of special flavor, or else marks the same in some unmistakable way so that Mr. Prior will know that the bee has returned from the Park, and not from some other place.

Let I take too much space I will now drop the Prior experiment and relate some of my own observations. These observations are free to the bone-picking of any and all of my readers.

It is my belief that bees can fly only a little over 50 miles per hour at the most, and that they are unable to fly even that fast when loaded.

Let any one take his place on a roof or other elevated position between an apiary and a field of buckwheat some morning. The bees will be passing by the thousands. Let the observer compare their flight with that of objects whose speed he knows. I venture to say that 30 miles an hour will satisfy most observers. The bees will seem to go about as fast as leaves blown by a gale, not so fast but one can see that they are honey-bees.

I have bees in my cottage at the beach. There are no trees within a mile. The wind has free sweep. Many a time have I studied the bees and the winds, and from those observations am forced to believe that bees find it difficult to fly over 30 miles an hour. Though the flowers may be secreting to their full capacity, a breeze of 20 miles causes the work to lag, and the bees appear very tired as they come back to their hives. When the wind gets up to 30 miles the work almost stops, only a few bees of possibly bolder or stronger flight continuing to seek honey. When the wind gets up to 40 miles no bee that wishes to get back to the hive leaves the same, for it is driven hopelessly away, and will tire itself out trying to beat back against the wind.

Right here I ought to say that when bees are about to alight they slacken their flight, and so might find it difficult to get to the entrance of the hive, though they might be able to fly right into the wind. But that this will account for only a few miles more of their speed I judge because of two hives whose entrances are amply sheltered from the prevailing wind. The bees from these hives continue work after the others have stopped, but they also stop when the wind gets over 30 miles.

The contents of the preceding paragraph will be clearer if one stops to think that a bee flying 50 miles per hour could just stand stationary if flying into a 50-mile gale. Bees flying 150 miles per hour would still go 100 miles an hour into a gale of 50 miles. If bees can make 100 miles an hour in the face of a 50-mile gale, it would seem that an ordinary sailing breeze would only serve to keep them cool in their exertions, and not tire them all out.

Let us approach the problem from another standpoint. The wing of the worker is $\frac{3}{8}$ of an inch long. Its sweep in flight does not exceed $\frac{1}{4}$ of an inch on the average for tip, middle and base. Is it possible for the bee to move forward any faster than the backward sweep of the wings? Yes, a little, allowing for leverage. Probably not more than twice. to be generous. Well, then, how many times per second must a bee move her wings to make them move at the rate of 30 miles an hour, that is, to allow the bee's body to move forward 60 miles per hour? I figure that the bee's wings would have to vibrate 3872 times per second. The pitch of a note with a vibration number so large is very high, much higher than that of bees in ordinary flight.

Here is a chance for some painstaking observer, who has a good ear for sound, to find out approximately the true flight of the bee. At present it will be safer for us to put it not much above 30 miles per hour, at least until we have proof to the contrary.

New London Co., Conn.



The Rietsche Comb Foundation Press.

BY ADRIAN GETAZ.

THE statement has been made recently that there are in use in Germany 17,000 Rietsche comb foundation presses. I don't know how many are in France, Belgium, Switzerland, and elsewhere. There is a factory in France making them. These presses are made of metal

similar to that used in making rollers. Rubber compounds, and hardened plasters and cements, are also used to a great extent, being cheaper than metal.

ADVANTAGES OF THE PRESS.

Why is it that so many European bee-keepers use such presses and make their own foundation instead of buying it? Several reasons are given.

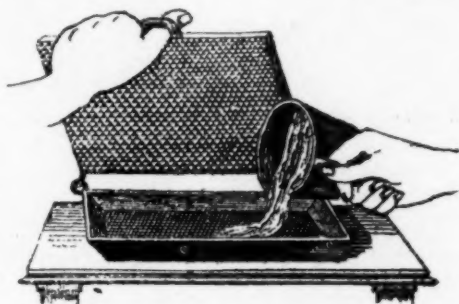
One is that the foundation sold by the large establishments is sometimes adulterated. The extent of this adulteration has been considerably exaggerated, and there are plenty of concerns selling pure wax foundation.

Another reason is the fear of introducing foul brood. Every now and then somebody reports that foul brood appeared in his apiary and no cause could be assigned to it, except that it was brought in with the foundation used. For my part, I do not see how the spores of foul brood, or any other living being, could survive the foundation-making process, yet I do not know positively. Furthermore, it is evidently best to be on the safe side.

SAVING HALF THE COST.

But the chief reason is, undoubtedly, the cheapness of the home-made foundation. The cost of foundation in Europe is about twice the price of the beeswax used. The cost of making it at home is insignificant. Almost every bee-keeper can make his foundation in a few winter evenings, when nothing else can be done. The process is very simple and very rapid. Open the press, pour in the wax, shut the press for a few seconds, then open it and take out the sheet of foundation. That's all. A lubricant should be applied now and then to prevent the wax from sticking.

The economy would be as great, or rather greater, here than there. The wholesale merchants here pay for the



The Rietsche Press.

beeswax 23 cents per pound. I could get 28 cents in Cincinnati, but from this the freight and commission would have to be deducted. The foundation for sections costs from 55 to 60 cents a pound, according to the quantity wanted, to which the freight must be added. The railroads do not accept a package for less than the 100-pound rate; that is, if I buy say 10 pounds of foundation I have to pay as much for freight as if it were 100 pounds. Some of the northern lines, however, put the limit at 50 pounds instead of 100.

If I am caught by an unexpected honey-flow, and have to order by express, it is still worse. The express rates are simply exorbitant.

ARTIFICIAL STONE.

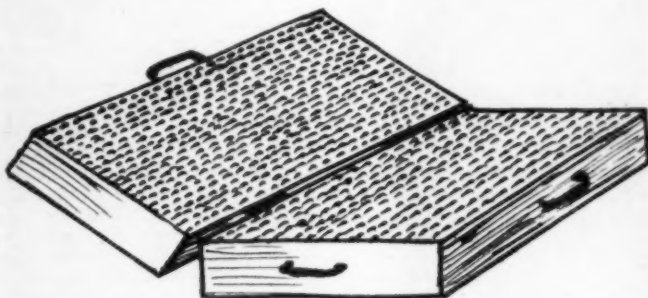
For several years I have been studying the question and experimenting. The first point in making the press is to determine what material to use. Metal is too costly; besides, the process of making would require some expensive machinery. On the whole, I do not think that a press made of metal could be sold for less than \$12. Plaster is an entirely too weak material, and had to be abandoned entirely. Portland cement is perfect in every respect but one. Even the best brands contain some free magnesia. This dissolves in the water used as a lubricant, or part of the lubricant attacks the wax and forms with it a soapy compound which eventually makes a coat on the press to which the wax is liable to adhere in spite of any lubricant used.

After many trials, I finally found that a mixture of cement and other substances constituting one of the artificial stones recently introduced in the building business, gave much better results. A coat of special paint completes the protection against the magnesia. This press

makes sheets 17x8½ inches. Different sizes can be made as well if preferred.

STRENGTH OF THE PRESS.

The foundation made on the press is usually rather brittle. This, however, can be remedied in a large measure, and entirely satisfactory results obtained. It must be remembered that wax shrinks considerably in cooling. If



The Artificial-Stone Press.

the sheet of foundation is left to cool in the press, the imprints of the press hold the sheet and prevent it from shrinking or contracting as a whole. So the contraction will take place everywhere, and cause innumerable very fine cracks. It is the presence of these cracks that renders the sheet so brittle. They can be seen by holding the sheet up to the light.

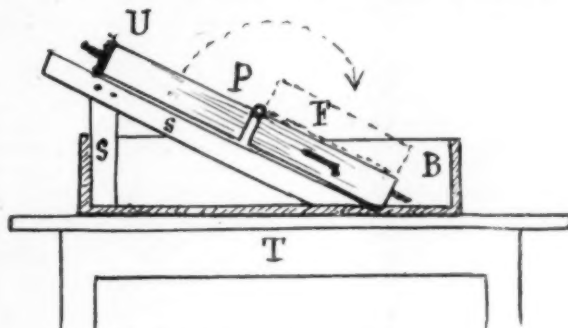
If the sheet is taken up when quite soft, the contraction will take place freely, and instead of cracking the sheet will contract as a whole. If the apiarist will put such foundation in the sections or brood-frames only in warm weather, or in a warm room, he will not be troubled by any excess of brittleness at all.

In order to meet these conditions it is necessary to make the foundation in a room quite warm. The warmer it is the better the foundation will be—90 degrees, or even 100 degrees, if the operator is willing to stand it. Of course, he is not expected to wear winter clothing.

THICKNESS OF PRESS FOUNDATION.

Another difficulty I met, was that the sheets were too thick for use in the sections. They would do very well for extracting and brood-nest combs, but that was all. Everything, every process that I could think of to make thin sheets was investigated, but found wanting until quite recently, when the idea struck me to put the press in an inclined position, so as to allow the surplus of wax to run off before the solidification takes place. Very simple thing, indeed. That is, after one has thought of it. It is like Columbus' egg.

It is necessary that the room where the sheeting is done, and the press itself, should be very warm, otherwise a thin sheet would solidify before the press could be closed.



Manner of Operating the Press.

Needless to say that the operator must be quick in pouring the wax in the press and closing it.

PROCESS OF MAKING.

In the above figure P is the press represented open. S a frame to support it. B a shallow box to catch the surplus wax and hold the press. T the table on which the whole is placed.

To make a sheet, pour the wax on the face F of the press, using only one hand, the other hand holding the upper part U, and closing the press as soon as the wax is poured in. The dotted lines show how the closing is done. The inside of the box and the outside of the press should be wet before beginning the operations, in order to prevent the surplus wax from sticking.

LUBRICANT FOR THE PRESS.

At this stage of operations we have a thin and soft sheet of foundation to take from the press. Needless to say that such a sheet will not stand any hard pulling, and in order to have it come off easily, a good lubricant should be used. The instructions given in the European bee-papers are to use water and honey, half and half, and apply after every fourth or fifth sheet. I find that there is quite a difference according to the quality or kind of honey and the temperature of the room and the press. The warmer these are the more honey should be used. I obtain better results by applying the lubricant often, and in small quantity rather than by doing the reverse. I suppose any cheap glucose syrup would do as well as honey. With me, a big sponge is the best instrument to apply the lubricant rapidly and uniformly.

SOFTNESS OF PRESS FOUNDATION.

The foundation from the press is thicker than the surplus foundation made by the Weed process, but is much softer. But let me say, first, that the difference in thickness is more apparent than real. The enormous pressure to which the Weed foundation is submitted reduces its volume perhaps to half what it otherwise would be, but it increases the hardness and toughness in proportion.

There is no doubt that the bees prefer the soft foundation, as they can work it more easily. Those of the old readers of this paper, who have kept their bee-papers, will find the discussions and reports on the use of the foundation from the Given press and the rollers, in the papers of ten or twelve years ago. The consensus of opinion was in favor of the press. My own experiments are too limited yet to be very conclusive. As far as I am able to judge now, the bees will take the soft foundation in preference. Furthermore, if the walls are not too high, they will thin the base of the cells of the soft foundation, but never those of the Weed foundation, probably because it is too hard. The walls will always be thinned and drawn, no matter how hard they may be; probably because the bees can get them between their mandibles and thus easily work them. So, after all, the excess of wax of the soft foundation is not lost at all. The transparency of the Weed foundation is merely a matter of looks, and need not be considered.

Knox Co., Tenn.

Minnesota State Fair and Premiums.

BY H. G. ACKLIN.

THE Minnesota State Fair, held Aug. 29 to Sept. 3, was the best one the State Agricultural Society has held, and one of the best State Fairs in the United States. The Minnesota bee-keepers did their share by putting up a larger exhibit than last year, not only in honey and bees, but canned fruit sweetened with honey, jams and marmalades sweetened with honey, cooking and baking sweetened with honey, and plain and sweet pickles put up with honey-vinegar. Cooking and baking, canned fruit, sweet and plain pickles all put up with honey and honey-vinegar have been exhibited for five or six years at our State Fair, and have done a good deal towards increasing the sale of honey and honey-vinegar. Many of the rich have asked for recipes for cooking, baking, and putting up pickles with honey and honey-vinegar.

Mr. Eugene Secor, of Iowa, was the judge of the apian exhibits, and the following is the

LIST OF EXHIBITS, WINNERS, AND AWARDS.

- Case of Extracted amber honey, 12 pounds or more in glass, labeled—1st prem., J. B. Jardine, \$10; 2d, Moeser's Apiary, \$6; 3d, H. G. Acklin, \$4; 4th, Walter R. Ansell, \$2.
- Display of extracted honey from greatest number of flowers in glass, labeled—1st, H. G. Acklin, \$5; 2d, J. B. Jardine, \$3; 3d, Walter R. Ansell, \$1.
- Beeswax—best quality, 10 pounds or more—1st, H. G. Acklin, \$5; 2d, J. B. Jardine, \$4; 3d, Moeser's Apiary, \$3; 4th, W. R. Ansell, \$2.
- Honey-vinegar—1st, H. G. Acklin, \$4; 2d, Moeser's Apiary, \$3; 3d, Walter R. Ansell, \$2.
- Best display of pies sweetened with honey—1st, H. G. Acklin, \$4; 2d, Moeser's Apiary, \$3; 3d, Walter R. Ansell, \$2.

- Best display of honey-cake—1st, H. G. Acklin, \$4; 2d, Moeser's Apiary, \$3; 3d, J. B. Jardine, \$2.
- Best and largest display of marmalades, jams and jellies put up with honey—1st, H. G. Acklin, \$4; 2d, J. B. Jardine, \$3; 3d, Moeser's Apiary, \$2.
- Largest and best display of plain pickles in honey-vinegar—1st, H. G. Acklin, \$3; 2d, Moeser's Apiary, \$2; 3d, J. B. Jardine, \$1.
- Largest and best display of sweet pickles put up with honey and honey-vinegar—1st, H. G. Acklin, \$3; 2d, Moeser's Apiary, \$2; J. B. Jardine, \$1.
- Largest and best display of variety of uses for honey—1st, H. G. Acklin, \$4; 2d, Moeser's Apiary, \$3; 3d, J. B. Jardine, \$2.
- Nucleus of golden yellow Italian bees and queen—1st, H. G. Acklin, \$4; 2d, J. B. Jardine, \$3.
- Nucleus of dark or leather-colored Italian bees and queen—1st, H. G. Acklin, \$4; 2d, Moeser's Apiary, \$3; 3d, J. B. Jardine, \$2; 4th, Walter R. Ansell, \$1.
- Case of white clover honey, 12 to 24 pounds—1st, H. G. Acklin, \$10; 2d, Moeser's Apiary, \$6; 3d, J. B. Jardine, \$4; 3d, Walter R. Ansell, \$2.
- Case of basswood or linden comb honey—1st, Moeser's Apiary, \$10; 2d, J. B. Jardine, \$6; 3d, H. H. Heins, \$4; 4th, H. G. Acklin, \$2.
- Case of other white comb honey—1st, Moeser's Apiary, \$10; 2d, D. C. Hazelton, \$6; 3d, Lindersmith, \$4; 4th, J. B. Jardine, \$2.
- Case of amber comb honey—1st, Moeser's Apiary, \$10; 2d, Walter R. Ansell, \$6; 3d, J. B. Jardine, \$4; 4th, H. G. Acklin, \$2.
- Case of extracted white clover honey, 12 pounds or more in glass, labeled—1st, G. A. Forgeson, \$10; 2d, Moeser's Apiary, \$6; 3d, J. B. Jardine, \$4; 4th, H. G. Acklin, \$2.
- Case of extracted basswood or linden honey, 12 pounds or more, in glass, labeled—1st, J. B. Jardine, \$10; 2d, H. G. Acklin, \$6; 3d, H. H. Heins, \$4; 4th, Walter R. Ansell, \$2.
- Case of other white extracted honey in glass, labeled—1st, J. B. Jardine, \$10; 2d, H. G. Acklin, \$6; 3d, Walter R. Ansell, \$4; 4th, Moeser's Apiary, \$2.
- Most attractive display of comb honey—1st, Walter R. Ansell, \$12; 2d, H. G. Acklin, \$10; 3d, Moeser's Apiary, \$7; 4th, H. H. Heins, \$5.
- Display of comb honey in extracting frames—1st, J. B. Jardine, \$6; 2d, H. G. Acklin, \$4; 3d, Walter R. Ansell, \$2; 4th, Moeser's Apiary, \$1.
- Most attractive display of extracted honey—1st, Moeser's Apiary, \$10; 2d, H. G. Acklin, \$6; 3d, J. B. Jardine, \$4; 4th, H. H. Heins, \$2.
- Display of extracted honey, granulated or candied—1st, Walter R. Ansell, \$5; 2d, H. G. Acklin, \$4; 3d, J. B. Jardine, \$3; 4th, Moeser's Apiary, \$2.
- Grand sweepstakes—largest, best, and most attractive exhibit—1st, Walter R. Ansell, \$12; 2d, H. G. Acklin, \$10; 3d, Moeser's Apiary, \$7; 4th, J. B. Jardine, \$5.

I have been on the committee to revise our premium-list for a number of years, and while we do not get just what we would like, it is getting better every year. The Fair managers always have their say as well as the committee. Cooking, canning, and using honey-vinegar are more attractive to the average Fair visitor than the honey alone, especially to the ladies, and are doing a lot to get them to using honey. The premiums do not begin to pay, as most of the cooking is eaten up by the judges, managers, and a few others.

One serious objection to our getting more premiums is, when we ask for it the Secretary of the Fair turns to his records and finds that Minnesota is now giving a larger amount of premiums in the honey department than any other State Fair in the United States.

Ramsey Co., Minn.

Honey as a Health-Food is the name of a 16-page leaflet (3½x6 inches) which is designed to help increase the demand and sale of honey. The first part is devoted to a consideration of "Honey as Food", written by Dr. C. C. Miller. The last part contains "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by every one who has honey for sale. It is almost certain to make good customers for honey. We know, for we have used it ourselves.

PRICES, prepaid—Sample copy free; 10 for 20 cts.; 25 for 40 cts.; 50 for 70 cts.; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; 1000 for \$7.50. Your business card printed free at the bottom of the front page, on all orders for 100 or more copies. Send all orders to the Bee Journal office.

Amerikanische Bienenzucht, by Haas Buschbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.



Our Bee-Keeping Sisters



Conducted by EMMA M. WILSON, Marengo, Ill.

What Has the Season Been, Sisters?

Now that the season is over, it would be nice to compare notes and learn what success the sisters have had during the past season. Tell us, dear sisters, just how you have succeeded, whether you got from each colony an average of 100 pounds, 50, or nothing at all. Tell us about any special item of interest. Let's bring our sewing, knitting, or fancy work, and sit down for a good, social chat.

Honey from Foul-Broody Colonies.

1. A short time ago I read in the American Bee Journal that a colony of bees might be lightly affected with foul brood for some time before detecting it. If honey from such a colony had been extracted and used for food, would it injure any one who had eaten it?

2. I see by a late paper that the bacteria in honey from an infected colony would not be killed if boiled for one hour. (I suppose this would be from a bad case.) And would give the disease to bees if fed back to them. What use could be made of such honey? MRS. RUSSELL.
Monroe Co., N. Y.

1. Foul brood, as you probably know, is caused by a microscopic plant—*Bacillus alvei*. If a single one of these plants, or one of its seeds (spores), be contained in honey, it will convey the disease just as truly as would a larger number; just as a single seed of a weed would foul a field of ground, although a larger number of seeds would more rapidly fill the ground with weeds. So you see it is not best to count too much on mild cases.

Now as to whether it is safe to eat such honey. Plants do not grow except in the right kind of soil. The soil that suits *Bacillus alvei* is found in the larvae of bees. In the human stomach they will not grow; you need have no fear of it any more than you would be afraid if you should swallow an apple seed that an apple-tree would grow out of your mouth. Surplus honey stored by a foul-broody colony is just as nice and wholesome as that from healthy colonies, although it might be death to bees.

2. Foul brood might be given by honey from a very mild case after two hours boiling. Three hours is safer,

and it is hardly advisable to use such honey at all for feeding bees. It isn't so much that it needs such a long time, as that there is danger that all parts of the honey have not been subjected to the same heat, and if a single spore should escape it could do the mischief. If the honey is clean there is no reason it should not be taken for table use. It could also be used for making vinegar. If extracted from foul-broody combs so as to be unfit for table use, it could be boiled long enough to make it safe, and then fed at a time of year when it would be all used in brood-rearing. Of course, it *might* do to boil it for two or three hours, but rather than take any sort of risk in such a serious matter, it would do no harm to boil it for four hours, reducing it with boiling water and *keeping it boiling all the time*.

Sisters Helping the Brethren.

C. W. Barnum says in *Gleanings in Bee-Culture*:

"My wife was induced to come out and help me in the apiary, partly for want of health and partly for her help; and the outdoor exercise has built her up so that she outweighs her husband at present."

If more of the sisters were to help the brethren it would be for their good in more ways than one, and probably for the happiness of their families, although some might not relish the thought of becoming the heftier member of the combination.

A Furniture Polish.

Many of the sisters polish their own furniture. Here is a recipe taken from the Chicago Record-Herald, by which you can make your own polish:

"To make a cheap and excellent furniture polish, take one ounce of white wax, one ounce of castile soap, half a pint of turpentine, two ounces of beeswax, half a pint of soft water. Dissolve the white wax and soap (which must both previously be cut in fine shavings) in the water on the stove, and dissolve the beeswax in the turpentine. When nearly cold mix these ingredients together and the polish will be ready for use."



Mr. Hasty's Afterthoughts



The "Old Reliable" seen through New and Unreliable Glasses. By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

HONEY AND SUGAR CHEMICALLY CONSIDERED.

It's a worthy chemical article that Adrian Getaz gives us on honey and sugar—but I'm afraid it also needs a few shots fired at it. For one thing he says, "Levulose does not crystallize at all". Then it would follow that such honey as they market in paper bags hasn't any levulose in it. That will hardly do. Less certainly wrong—but still it looks doubtful—if granulation sets in because, at the low temperature, water can not hold so much of the other ingredients. If that's correct, one would think that the heaviest, thickest honey would be the first to granulate—and it's the other way, I believe.

On the dextrose and levulose matter let me illustrate what I think. Here is beeswax—certainly looks like a simple, straight chemical; but it is now known to be a varying mixture of three different waxes. I prophesy with a good

deal of confidence that the dextrose of honey will eventually be found to be a varying mixture of several different sugars—and the same of the levulose. I think the recognition of this fact will help us some in our puzzles, but probably not get us out of all of them.

He says the glucose of commerce, if pure, would be the same as the levulose of honey. Isn't "levulose" there a slip for dextrose? My memory may easily be at fault, but, if not, glucose is one of the dextroses. You see, if there were a thousand different sugars they would all *have to be* dextroses or levuloses, or neutrals. Dextrose means right, and levulose means left, referring to the way a beam of polarized light is twisted when it passes through. Naturally this test makes the list of sugars pretty short—and may range together things which are wide apart in quality.

We'll thank him for explaining how poison gets into glucose—and thence into the grocer's syrup. Made with

sulphuric acid; and sulphuric acid has got down to such exceeding cheapness that it is too cheap to be made with commercial sulphur. Largely made by burning mineral pyrites, and some of the mineral has arsenic in it as well as sulphur. Lime takes the sulphuric acid out of the glucose; but lime won't take the arsenic out after it once gets in. Page 661.

DIFFERENCE BETWEEN YOUNG AND OLD BEES.

It is an interesting fact that page 659 gives us about young bees as distinguished from older ones. Many fine hairs right on the surface of the large compound eyes; while from the eyes of the old bees the hairs are missing—broken off, or at least gone somehow. We hardly expect to be told that they pull them out, either from their own eyes or their neighbors'. More likely the hairs get brittle and easily break off when the proper time comes for them to go. And the sweeping, cat-wash-her-face motion of the front legs often seen, may furnish sufficient means of breakage. I'll run the risk of a guess that young bees are not anywhere near blind, however—in fact, the editorial remark as good as proves it. Where do all these hairs go to? Rest of young bee's body also parts with quite a fleece of hair during the first 20 days of life—thousands of hairs for each bee, and multiplied by say 100,000 bees in the course of the season. Bottom of brood-chamber ought to be a good place to go wool-gathering. Is it not these shed hairs that give the cappings of the brood such a peculiar

texture—neither exactly wax nor exactly anything else? I'll play that most of the shed hairs adhere slightly to the wax surfaces, and then the bees slightly scrape the surfaces over, getting a mixture of hair and wax, which a little kneading fits for use as brood-cappings. Leastwise we know that the lower edges of the combs get scraped away with the lapse of time. If we fit in comb it will gradually get gone, and the space above the bottom-bar will appear again.

SUDDEN EFFECTS OF BEE-STINGS.

The case of W. W. Shafer, on page 660, is a very extreme one—also an example of a rare turn or sudden change which, for aught we know, any one of us is liable to suffer. After having been pretty well insured to stings one suddenly becomes very susceptible to them, and continues so. The case of Langstroth and James Heddon were a little that way, I believe.

EARLY SPRING CLEANING OF HIVES.

Probably all right in Texas, but in the cold North I think harm instead of good is sometimes done by such vigorous spring cleaning as that per page 664—at least, there is such a thing as doing it too early. Makes the hive too drafty for the babies. Wait a bit. Wait till the extra-strong colonies have got the cleaning all done ahead of you; then clean the weaker ones.



Ask Doctor Miller

??

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. MILLER, Marengo, Ill.

Cucumber as a Honey-Plant.

What do you know of the cucumber as a honey-plant, and of the quality of the honey? MICHIGAN.

ANSWER.—For several years my bees have had the range of some 200 acres of cucumbers, but I confess I don't know positively much about the cucumber as a honey-plant. The fall yield is better than it was in previous years, but it is not certain how much of the increase is due to cucumbers, as other plants are in bloom at the same time. Neither do I know the quality of the honey; yet it can not be anything very bad in color or flavor. Can any one give any more definite information?

Extracting-Supers in Winter—Late Introduction of Queens.

Our honey season here is about closed for this year, although the bees, I notice, are storing nectar from some source—a thing I have never noticed before this late, and can not guess what plants are furnishing this nectar unless it be lespedesa, or Japan clover. The next move in order now is to arrange each hive for the winter, and that brings about the necessity of asking a few questions.

1. Is it best here to remove all supers and leave the colony in the brood-chamber through the winter?
2. If your answer is yes, then tell us how we are to get all that scattering honey out of the combs of the super, so as to house and protect the same till wanted again next spring?
3. I have uncapped honey in the supers to get the bees to carry it down, but is that the right thing to do? and how much at one time would be right to uncap?
4. When honey in supers is not capped, I know of no way to get the bees to carry it down only by outside feeding, which is not practicable for many reasons.
5. Will an 8-frame hive, Langstroth size, be sufficiently large to comfortably house a good-sized colony in the brood-chamber alone, and also supply honey enough through the winter?
6. Is there any way to save this scattering uncapped honey in the supers without extracting it?
7. If fed to the bees outside the hive, by piling up these

supers some little way from the apiary, and letting the bees clean it up—would you recommend that?

8. Can such uncapped honey be kept through the winter here till needed next spring, if left in the combs and kept from bee-moth and other insects—ants, etc.?

9. Or would it be a better plan to extract this uncapped honey now, and feed it back if it becomes necessary?

10. After the queens cease to lay in the winter months, would it be a good time to introduce other queens, should one wish to requeen or Italianize his apiary? would the fact of their having no young brood to rear a queen out of, tend to simplify the introduction of a laying queen?

MISSISSIPPI.

ANSWERS.—1. Most certainly, comb-honey supers should be removed to avoid spoiling sections, and it is probably better to remove extracting supers. I take it that you are speaking of extracting-supers.

2. As you say in No. 4 that outside feeding is not practicable, the only way left to be sure of getting all honey out is to extract.

3. Yes, that's all right if the bees will carry it down, and it doesn't matter just how much at a time is uncapped, only so it be uncapped as fast as the bees carry it down.

4. If I understand you rightly, the bees carry down when you uncap, but not that which has never been capped. The philosophy of the difference is probably this: When the bees find the honey freshly uncapped, it is not in shape to suit their notions of neatness, so they go to work cleaning up, and when they get under headway they continue till the honey is emptied; but the honey which has never been capped is just as the bees left it, and so needs no cleaning up. If you were to sprinkle these last combs with diluted honey the bees would clean it up, and it is quite possible that might start them to carrying down, the same as if you had uncapped it.

5. Yes, and no. It is large enough to contain the colony and abundance of stores; but the bees will not be so sure always to have abundant stores as they will in a larger hive, and those who use 8-frame hives must see to it that combs of sealed honey are given where lacking.

6 and 7. It is very doubtful that there is any better way than the one you mention in No. 7.

8. Uncapped honey will keep through the winter all right if kept in a place warm enough.

9. Either plan will answer, but it might be less trouble to keep it in the comb.

10. I've had no practical experience in the matter, but it is said that after the close of the season a queen may be

successfully introduced. Other things being equal, the absence of brood that you mention would be favorable. It is also a time at which there could be no loss from a break in laying, as there would be at the beginning of the harvest.

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Reports and Experiences

Good Report and Good Prospects.

As the season is over for 1904, I will give a report of my honey crop. I have taken 1450 pounds this season, 77 pounds of which is extracted. My best colony gave me 152 pounds, and the average was 96 pounds per colony, spring count.

I had 15 colonies last spring, and have increased to 30, and they are in fine shape for winter. My bees are the red clover Italians.

This was a good season for honey in this locality, and there is a fine growth of young white clover which makes the prospect look good for next season.

H. M. GARNER.

Miller Co., Mo., Oct. 15.

Good Market for Chunk Honey.

Our bees have done fairly well this season, though some colonies did not store enough to take them through the winter. Others filled two-story hives full. I run mostly for chunk honey, as the farm and poultry take up too much of my time for working for section honey. Besides, it pays equally as well in our market to cut out the honey and sell it in quart, half-gallon, and three-quart pails, and by cutting only alternate combs it keeps the bees building all straight combs.

D. F. MARRS.

McLennan Co., Tex., Oct. 17.

Finding and Hiving a Swarm.

One Sunday last June I went out and sat down under a big tree. I had been sitting there perhaps two minutes when I looked up and saw bees thick as spatter in another tree.

Two weeks later I went out to see how my pets were. I sat down about 10:30 in the same place, and in five minutes they started to swarm! There I was. They came out and alighted on a nice little bush. Now, what would you have done? I will tell you what I did.

I went half a mile and brought a soap-box, came back, bees still there. I pulled grass and weeds "to beat the band". Then I set the box down, cut the limb, shook the bees off, and do you know they couldn't all get into the

box? There I was. So I hunted till I found "the lady of the house", and put her up in the farthest corner.

Then I thought of a friend of mine

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who used to keep bees, so I started to run. He lived only two miles away, and the mercury stood 85° in the shade! So you see it was fun, to get over there and back with a bee-hive on the back, and all the people coming from church! Well, I got back with the hive all right; it was nice and clean, but there I was—box full of bees, and a peck outside.

Well, I got ready, spit on my hands and went at it. I worked my knife under the cover, and pried it off, hunted till I found the queen again, took her and a handful of her friends, put them into the hive, scraped the bees off the box till I could get a hold, then shook them out in front of the hive—bare handed and all, mind—and

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get strong and healthy—gain steadily in weight, are chicks hatched in Reliable Incubators.

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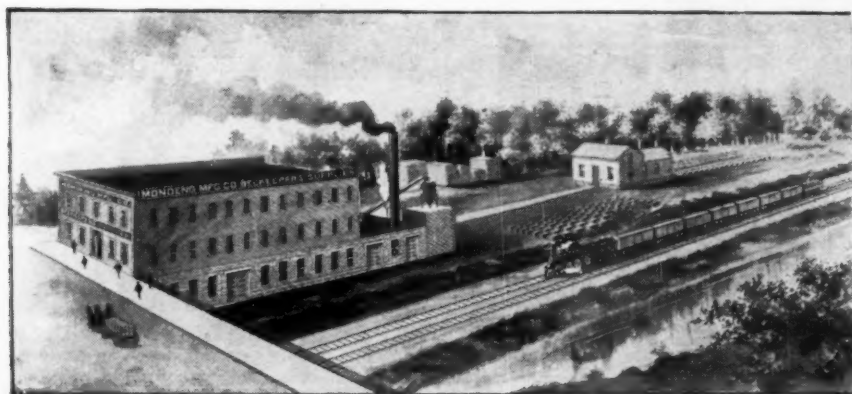
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only two of the hot things stuck into me; but I didn't let them know I got any, or they might have given me more and that took nerve.

But I got the bees safe and sound, and they are the largest swarm I ever saw. There was more than I could get into a half-bushel basket; and they are the genuine Italians, too. Isn't that a dandy find? They are doing grandly.

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Untested	\$.75	\$4.00	\$7.50	\$.60	\$3.25	\$ 6.00
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The 4x5 Section.

The status of the 4x5 section appears to be that it sells a little more readily, but will not bring any higher price, in most markets, at least. The reason it is preferred seems to be that, to many people, it looks larger than it really is in comparison with the regular size, and in this self-deception of the buyer lies its only advantage over the square section. Cases weigh somewhat more; and if 1 1/2 sections are used they are apt to go considerably over the weight required by the grading-rules. To the large producer it is a serious matter to give away a pound or two of honey with each case. Aside from these considerations, I believe it costs me more to produce 4x5 than the regular.—J. A. Green, in Gleanings in Bee-Culture.

Sweet Clover.

I have frequently in the past written about this plant, and some may consider that I am cranky on the subject, but I feel that it cannot be too highly praised as a honey plant. I stand up as a champion of sweet clover. Since it has become pretty well established around here I am very seldom bothered with robber-bees, for any great length of time. Before its introduction, there was a time nearly every season from about July 15 to Aug. 15, or later, when I dreaded to open a hive owing to the annoyance caused by robbers. If you have no sweet clover in your locality, introduce it and pay no attention to the kicks made by cranks. If I thought I was doing an injury to my neighbors by encouraging the spread of this plant I would not advocate its introduction. But I know that it is a benefit and not a scourge as some cranks are pleased to consider it. It takes the place along roads and waste-places formerly occupied by noxious weeds, and instead of impoverishing the soil it adds fertility to it.

When discussing this subject with my neighbors, if they are inclined to consider it a weed, I ask them: "Did you ever see it growing in a wheat-field? Did you ever see it growing in a corn-field? Did you ever see it growing in any field or ground that is properly and regularly cultivated?" To all these questions they are obliged to answer, no. They may, of course, see an occasional plant growing in a corn-field, but it is easily killed by proper cultivation. Many men who will allow



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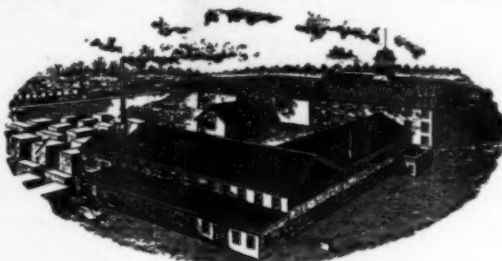
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GUS. DITTMER, Augusta, Wis.

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cockle-burs to grow as high as their heads on their farms, will throw up their hands in holy horror at the sight of sweet clover. They seem to have a particular spite at it because it looks like good stock food; but livestock will not usually eat it unless taught, and to teach stock to eat it is more of a task than the average farmer is capable of. Sow sweet clover. Keep still about it and let the kickers kick.—Progressive Bee-Keeper.

Government Apicultural Work.

The years of quiet, steady, persistent, earnest work of Mr. Frank Benton in urging the Department of Agriculture to recognize apiculture, are at last bearing fruit. Heretofore the only experimenting that has been done, has been done with Mr. Benton's own bees, which has often interfered seriously with his crops of honey. Now there is to be a central, experiment apiary just

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Don't forget that we are the largest jobbers in the United States of Root's Bee-Supplies, Johnson Incubators and Brooders, Humphrey's and Mann's Bone Cutters, Poultry Supplies of all kinds, Seeds and Implements. Remember, you get these goods at Factory Prices, and save half the freight. Let us book your order for Golden Italian, Red Clover and Carniolan Queens; listed in our Catalog. Send for Free Illustrated Catalog.

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The Passenger Department of the Illinois Central Railroad Company have recently issued a publication known as Circular No. 12, in which is described the

best territory in this country

for the growing of early strawberries and early vegetables. Every dealer in such products should address a postal card to the undersigned at DUBUQUE, IOWA, requesting a copy of "Circular No. 12."

J. F. MERRY, Asst. Gen'l Pass'r Agent.
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I think a few of the many letters I receive will interest you more than anything I could write. Of course you would like to know why Bingham Smokers go without puffing and smoke all the time and are always ready. FULL OF SMOKE and burn anything dryish and never go out just when you want smoke the most and quick. I have not room to tell all about them, but they DO ALL the above things to perfection. But what I wish to say is,
SEND FOR CIRCULAR.

T. F. BINGHAM, Farwell, Mich.

DEAR SIR:—We have used and sold all the advertised smokers, but find none that suit us as well, or that find as much favor with our patrons as the Bingham smoker. They have no equal.
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Every kitchen needs a knife sharpener. Every woman will appreciate the LIGHTNING KNIFE SHARPENER—a new kink for the kitchen. It's cheap, but it's nicely made and finished, and will wear well. Pats a keen edge on the knife and saves the stovepipe. Sample mailed for only three 2-cent stamps. Order at once—they are going like hot-cakes.

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H. E. WEED,
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across the Potomac on the Virginia shore, and sub-stations in different parts of the country—one at Chico, Calif., having already been decided upon. Two special agents in apiculture, who will assist Mr. Benton, have been appointed, one being our old friend John M. Rankin, who was once Inspector of Apiaries for this State, and the other a Mr. Leslie Martin, of Tennessee. There is also soon to be appointed an apicultural clerk. Aside from the experiments by which we may expect to profit, we may often find it profitable to thus have friends at court.—Bee-Keepers' Review.

Extracting Unripe Honey.

The bee-keeper who extracts green, raw honey for the market is a foe no less to be dreaded than the adulterator. Seeking a personal gain in quantity, a victim of his own ignorance, he deals himself the hardest blow; for while his own crop is not perceptibly increased, the quality is such as to preclude a second sale to a customer; and the tendency is to disgust those who might otherwise become habitual users of our product.—American Bee-Keeper.

Progress of Apiculture in France.

Mr. P. Noblecourt, writing to *L'Apiculteur* from a village in France, says, in showing how slowly improved methods gain a footing in some localities: "At Aubencheul frame hives were not known [a short time ago]. During last winter I made four new ones which drew the attention of some friends who made some to transfer in in May. The harvest was good in our country. Bee-keepers here have always been in the barbarous habit of suffocating their bees to get the honey and take the wax, hence they could not profit by good years to build up their apiaries. In winter they saved but a few colonies in straw baskets or skeps. As for an apiary, none exists here except one at Villers, containing four Layens hives in a magnificent garden. I intend to make the new system known by giving and lending books and pamphlets treating on apiculture. Such is the progress (slow enough) that apiculture is making in our country."

That writer is a born missionary.—Gleanings in Bee-Culture.

CONVENTION NOTICES.

Illinois.—The Chicago-Northwestern Bee-Keepers' Association will hold its next annual meeting on Wednesday and Thursday, Nov. 30 and Dec. 1, 1904, in the Revere House, southeast corner of North Clark and Michigan Sts., Chicago. The prospects are that this convention will be the largest and best ever held by the Chicago-Northwestern. Prominent bee-keepers from a distance have said they were coming. It will be a great time. Everybody at all interested in bees or bee-keeping is urgently invited to be present. There will be live discussions of live subjects relating to bee-keeping. Come. It's Nov. 30 and Dec. 1. And Chicago is the place!
Park Ridge, Ill. HERMAN F. MOORE, Sec.

Connecticut.—The Connecticut Bee-Keepers' Association will hold their fall meeting at Hartford, in the Capitol building, room 50, Nov. 10, commencing at 10:30 a.m. There will be a question-box open to all. All bee-keepers are invited to attend, bringing friends with them and one or more questions that they would

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like discussed. There will be two or three papers by prominent bee-keepers. Please bring a sample of your this year's honey crop, or some apiarian fixture that you would like to show.
E. E. SMITH, Sec.
Watertown, Conn.

Illinois.—The Illinois State Bee-Keepers' Association will hold its 14th annual convention in Springfield, Tuesday and Wednesday, Nov. 15 and 16, 1904. On account of the I. O. O. F. the railroads of the State give reduced rates, notice of which will be made later herein. We expect to have a good program, and with a membership of more than a hundred we are expecting a larger attendance than ever before. Come, and bring your neighbor bee-keeper—for the importance of this meeting will go a long way in securing the appropriation for continuance of the bee-keepers' law of this State.
Rt. 4, Springfield, Ill. JAS. A. STONE, Sec.

Pennsylvania.—The Pennsylvania State Bee-Keepers' Association will hold its fall convention in Harrisburg, Tuesday and Wednesday, Dec. 6 and 7, 1904. An excellent program has been arranged. Many subjects of vital interest will be ably presented. General Manager N.E. France, of the National Bee-Keepers' Association, will be present, as well as other prominent bee-keepers. Every bee-keeper in Pennsylvania should interest himself in this meeting.
D. L. WOODS, Sec.
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Comb and Extracted Honey, at once; whole sale. State your lowest price for cash. Reference, Traders' National Bank.

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Quote your lowest price delivered here. WE REMIT PROMPTLY.

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Honey and Beeswax

CHICAGO, Oct. 24.—There is not an active market considering the season of year, prices are not strong and may sag in the absence of demand. No. 1 white comb honey, 12½@13c; fancy clover, 14c, with corresponding grades 1@3c less. Extracted, white, 6½@7½c; amber, 6@6½c, according to kind, flavor, quality and package. Beeswax, 30c.

R. A. BURNETT & CO.

KANSAS CITY, Sept. 22.—Market on comb honey is quite active at \$2.75 per case for fancy white stock. Extracted rather slow at 6½@7c. We look for the demand on extracted to pick up considerably with cooler weather. Beeswax in good demand at 30c per pound.

C. C. CLEMONS & CO.

BOSTON, Oct. 24.—We are pleased to note an increased demand for honey, which with comparatively speaking, light receipts, makes prices firm. We quote fancy white, 16@17c; No. 1, 16c; with but little No. 2 on hand or to be had. Extracted, light amber, 7@8c.

BLAKE, SCOTT & LEE.

NEW YORK, Oct. 8.—There are no new features in the honey market. White honey is arriving quite freely and meets with fair demand at 14@15c for fancy white, 13c for No. 1 white, and 11@12c for amber. Hardly any buckwheat has arrived as yet, and prices on same are not established. First grade of buckwheat honey will sell at from 10@11c. Extracted honey in good demand at unchanged prices. Beeswax market dull and declining.

HILDRETH & SEGELKEN.

CINCINNATI, Oct. 28.—There is a marked improvement in the demand for comb honey since our last quotations. No material change in the extracted-honey market. We continue to quote white clover extracted honey in barrels and

cans at 7@8½ cents; amber in barrels, 5½@6c. Fancy white clover comb honey, 14@15c. Beeswax, 28c.

THE FRED W. MUTH CO.

ALBANY, N.Y., Oct. 11.—The honey market is steady here at 15c for best white comb, and 12½@13½c for buckwheat. The weather is cool and favorable. Extracted, white, 6½@7c—slow; buckwheat, 6@6½c. Beeswax, 28@30c.

H. R. WRIGHT.

PHILADELPHIA, Oct. 25.—Shipments have been quite heavy in the last two weeks. Prices are a little weaker in consequence, although fancy honey maintains a good price. We find the shortage is always in the fancy goods, and the off goods are what overstocks the market. We quote some sales: Fancy white comb, 16@17c; No. 1, 14c; amber and No. 2, 12@13c. Extracted, white, 8c; amber, 6@7c.

We are producers of honey and do not handle on commission.

WM. A. SELSER.

SAN FRANCISCO, Oct. 12.—White comb, 1-lb. sections, 12½@13c; amber, 9@11c. Extracted, white, 6@6½c; light amber, 5@6c; amber, 4@4½c; dark amber, 3½@3¾c. Beeswax, good to choice, light, 27@30c; dark, 27@28c.

There is not much choice to select water-white honey offering, and this sort is being very steadily held. Stocks of amber grades are of fair proportions and are not receiving much attention from any class of buyers.

CINCINNATI, O., Oct. 20.—Comb honey is now coming in more freely, and prices if anything have moderated a little. The sales made and prices obtained were for No. 1 fancy water-white comb, 13@15c; No. 2, 12½@14c. Extracted is sold as follows: White clover, in barrels, 6½ cents; in cans, 7½@8c; amber, in barrels, 5½@5¾c; in cans, 6@6½c. Beeswax, 27c.

C. H. W. WEBER

ALLOWED ON EARLY ORDERS FOR

Let me SELL or BUY your HONEY

If you have some to offer, mail sample with lowest price expected, delivered Cincinnati.

— IF IN NEED —

State quantity and kind wanted, and I will quote you price. I do business on the cash basis, in buying or selling.

Full stock of Bee-Supplies, the best made. Root's Goods at their factory prices. SEEDS of Honey-plants.

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